Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Montana State University – Billings, 1500 University Drive, Billings, MT 59101

2. Type of action: Application for Beneficial Water Use Permit 43Q 30111263

3. Water source name: Groundwater

4. Location affected by project: Section 2, T1S, R25E, Yellowstone County

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The applicant proposes to divert water from groundwater, by means of a 40 foot deep well, from May 1 to October 1 at 115 GPM up to 28.0 AF, from a point in the NWSWSW Section 2, T1S, R25E, for irrigation use from May 1 to October 1. The Applicant proposes to irrigate lawn and garden on 11.2 AC. The place of use is generally located in SWSW Section 2, T1S, R25E, Yellowstone County on the west end of Billings at the corner of Shiloh and Central. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Natural Resources and Conservation
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program
United States Fish and Wildlife Service
United States National Resource Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **-** The source of supply is groundwater and therefore is not listed as dewatered. Modeling of groundwater in the area indicates availability of water.

Determination: Not Applicable

Water quality - The source of supply is groundwater and therefore is not listed as impaired. The proposed project will not affect surface water quality.

Determination: Not Applicable

Groundwater - The proposed project will draw water from a large region of the Yellowstone alluvial aquifer. Modeling indicates that the available water in the aquifer is greater than all legal demands. The proposed use is lawn and garden irrigation that has little possibility of affecting groundwater quality. Department hydrogeologists have determined that Shiloh Drain downstream of the project may be depleted by this appropriation in an amount up to 5.1 AF/Month (approximately 37.4 GPM). Flows in Shiloh Drain are estimated at a minimum of 1.83 CFS (821.3 GPM). There are no active surface water rights on Shiloh Drain. DNRC hydrogeologists have determined that no existing water rights will experience significant drawdown due to the proposed project.

Determination: No Significant Impact

DIVERSION WORKS - The means of diversion is a submersible pump in a well 40 feet deep. The well is in place and was drilled by a licensed well contractor. No channel or flow changes will occur, no riparian areas will be impacted and no dams or barriers are proposed.

Determination: No Impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - According to the Montana Natural Heritage Program there are no plant species of concern in the project area. Four animal species of concern include the Pinyon Jay, the Spiney Softshell, the Western Milksnake, and the Sauger. Use of a well to provide water to a lawn and garden irrigation system will not affect any habitat for mammals, birds, reptiles, or fish. No barriers to movement or migration would be created. The project is not within Sage Grouse habitat as mapped by the Montana Sage Grouse Habitat Conservation Program.

Determination: No Impact

Wetlands - There are several wetlands and associated ponds in the general area of the project although none are mapped by the United States Fish and Wildlife Service. Groundwater used for irrigation would not impact wetland resources.

Determination: No Significant Impact

Ponds – No ponds will be created or removed as part of the proposed project.

Determination: No Applicable

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - According to the United States National Resource Conservation Service the dominant soil type in the project area is Lohmiller silty clay with 0 to 1% slopes. The soil is well drained and non-saline to moderately saline. The low slopes and low salinity of soils in the project area indicate low possibility for instability or saline seeps.

Determination: No Significant Impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The existing vegetative cover is existing lawn and garden. No change is vegetative cover is proposed and there is no avenue for the establishment or spread of noxious weeds. It will be the responsibility of the landowner to monitor and remove noxious weeds.

Determination: No Impact

AIR QUALITY – Lawn and garden irrigation has no potential to affect air quality.

Determination: No Impact

HISTORICAL AND ARCHEOLOGICAL SITES – No construction is proposed as part of the project and no change in existing structures or landscaping. No degradation of historic or archeologic site is predicted.

Determination: No Impact

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – Use of groundwater for lawn and garden irrigation eliminates the use of treated potable city water for irrigation and reduces demand on the water treatment plant.

Determination: Positive Impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - The local environmental plans and goals are represented by City of Billings building codes and zoning. The project is consistent with zoning and codes.

Determination: No Impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - The project is located in a densely populated urban area on a heavily trafficked street in a development with few through going routes. No wilderness areas or recreational activities can be accessed through the project area.

Determination: No Impact

HUMAN HEALTH – Lawn and garden irrigation has no potential to negatively impact human health.

Determination: No Impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No__**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights*.

Determination: Not Applicable

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* No significant impact

(b) *Local and state tax base and tax revenues?* No significant impact

(c) *Existing land uses?* No significant impact

(d) *Quantity and distribution of employment?* No significant impact

(e) *Distribution and density of population and housing?* No significant impact

(f) *Demands for government services?* Demand for treated water would be eliminated.

(g) *Industrial and commercial activity?* No significant impact

(h) *Utilities?* Water from the municipal treatment facility would be eliminated. Electricity to run the pump would be required.

(i) *Transportation?* No significant impact

(j) *Safety?* No significant impact

(k) *Other appropriate social and economic circumstances?* No significant impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts are recognized.

Cumulative Impacts: The area of the proposed project is in the south part of Billings, MT and is subject to rapid growth and development. To the west subdivisions are being developed continuously and businesses are being built to serve the nearby Interstate exit

ramp. The project has little environmental impact on the surrounding growth. No current water right applications are pending within the local area.

3. ***Describe any mitigation/stipulation measures:*** None

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The only reasonable alternative to the project is a no action alternative. The no action alternative would require the campus to use treated potable water from the City of Billings water treatment facility rather than untreated groundwater. There are no significant environmental benefits to the no action alternative.

PART III. Conclusion

1. ***Preferred Alternative:*** Issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

2 ***Comments and Responses:*** None

3. ***Finding:***
*Yes___ No__**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action: The Environmental Assessment found no significant adverse environmental issues related to the proposed project and some possible positive impacts and is the appropriate level of analysis.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison
Title: Hydrologist
Date: 7/18/2017